The effects of HRM practices and antecedents on organizational commitment among university employees

Smeenk, S.G.A.; Eisinga, R.N.; Teelken, J.C.; Doorewaard, J.A.C.M.

Published in:
International Journal of Human Resource Management

DOI:
10.1080/09585190600965449

Int. J. of Human Resource Management 17:12 December 2006 2035–2054

The effects of HRM practices and antecedents on organizational commitment among university employees

S.G.A. Smeenk, R.N. Eisinga, J.C. Teelken and J.A.C.M. Doorewaard

Abstract This paper examines which factors affect organizational commitment among Dutch university employees in two faculties with different academic identities (separatist versus hegemonist, Stiles, 2004). The analyses of Web survey data reveal that in the separatist faculty decentralization, compensation, training/development, positional tenure and career mobility have significant effects. Age, organizational tenure, level of autonomy, working hours, social involvement and personal importance significantly affect the employees' organizational commitment in the hegemonist faculty. Participation, social interactions and job level are factors that are important in both faculties. The findings indicate that the set of factors affecting the organizational commitment of employees differs between the separatist and hegemonist faculties. The findings empirically support the argument that different configurations or 'bundles' of HRM practices (Delery and Doty, 1996; Guest, 1997) are suited for organizations with different identities. Explanations for the observed relationships, implications and limitations of the study are discussed.

Keywords Managerialism; organizational commitment; strategic HRM; antecedents; universities.

Introduction

Since the early 1980s, European universities have been influenced by social, economic and political developments, such as democratization, diversification, decentralization and budget constraints (Chan, 2001; Potocki-Malicet *et al.*, 1999; Trinczek and West, 1999). These developments have reinforced the trend in academic institutions to adopt organizational forms, technologies, management instruments and values that are commonly found in the private business sector (Deem, 1998). This wave

S.G.A. (Sanne) Smeenk, Radboud University Nijmegen, Nijmegen School of Management, Business Administration, Thomas van Aquinostraat 1.2.07, 6500 HK Nijmegen, The Netherlands (tel: +31 24 361 1339; fax: +3124 361 2351; e-mail: S.Smeenk@fm.ru.nl); R.N. (Rob) Eisinga, Radboud University Nijmegen, Faculty of Social Sciences, Social Science Research Methods, Thomas van Aquinostraat 4.1.06, 6500 HE Nijmegen, The Netherlands (tel: +31 24 361 5722; fax: +31 24 361 2351; e-mail: R.Eisinga@maw.ru.nl); J.C. (Christine) Teelken, Radboud University Nijmegen, Nijmegen School of Management, Business Administration, Thomas van Aquinostraat 1.1.31, 6500 HK Nijmegen, The Netherlands (tel: +31 24 361 5935; fax: +31 24 361 1933; e-mail: C.Teelken@fm.ru.nl); J.A.C.M. (Hans) Doorewaard, Radboud University Nijmegen, Nijmegen School of Management, Business Administration, Thomas van Aquinostraat 1.1.33, 6500 HK Nijmegen, The Netherlands (tel: +31 24 361 2332; fax: +31 24 361 1933; e-mail: H.Doorewaard@fm.ru.nl).

The International Journal of Human Resource Management
ISSN 0958-5192 print/ISSN 1466-4399 online © 2006 Taylor & Francis
http://www.tandf.co.uk/journals
DOI: 10.1080/09585190600965449

of reforms, which has swept across universities and other public organizations all over Europe, is known as 'New Public Management' (NPM) or 'managerialism' (Hood, 1991; Pollitt and Bouckaert, 2004). It involves 'greater managerial power, structural reorganization, more emphasis on marketing and business generation, moves towards performance-related pay and a rationalization and computerization of administrative structures' (Parker and Jary, 1995: 320). Other themes that appear in accounts of what managerialism entails are budget transparency, output measurement, increased competition, and use of private sector management techniques (see Aucoin, 1990; Hood, 1991, 1995; Pollitt, 1993).

The timing, pace and extent of managerial changes show some variation among countries, universities and faculties (Bleiklie, 2001; Hood, 1995; Pollitt and Bouckaert, 2004). For example, on country level there are low-managerialism adopters such as Germany, Greece, Spain, Switzerland, Japan and Turkey. These countries are followed by the Netherlands, France, Denmark, Norway and Ireland, which are ranged under the group of countries that show a number of marked shifts in the direction of managerialism. High-managerialism countries are the United Kingdom, Sweden, Canada, New Zealand and Australia.

David Stiles (2004) distinguishes three theoretical perspectives of academic identity that are characterized by particular levels of managerialism adoption: the separatist, the integrationist, and the hegemonist perspective. In the low-managerial separatist view, the academic identity is considered cohesive and collegial. Strategic goals are centred on promoting common values such as 'the acquisition of knowledge for its own sake . . . freedom of expression; and working with colleagues' (Stiles, 2004: 161). The middle-managerial integrationist perspective sees the academic identity as 'more fragmented and conflictual since traditional collegial values are not so widely shared' (Stiles, 2004: 161). In the high-managerial hegemonist view the academic identity is 'dependent and subservient' and 'rational-economic managerial values dominate, including those emphasizing administrative effectiveness, career advancement, financial reward and customer-orientation' (Stiles, 2004: 162). In this paper, we concentrate on both extremes: the separatist (low-managerial) and the hegemonist (high-managerial) identities.

Each of the two identities, which reflect organization values, requires a particular set of employee values in order to have organizational commitment. After all, only when the employee values match the organization values as embodied in the academic identity, is organizational commitment expected (Allen and Meyer, 1990; Kanter, 1968). Because the separatist organization values are derived from, for example, freedom of expression, collegial institutional strategies and a specialist nature of knowledge (Stiles, 2004), they match with professional employee values focused on individual autonomy, collegiality and professionalism. Because the hegemonist organization values originate from, for example, administrative effectiveness, managerial institutional strategies and financial rewards (Stiles, 2004), they fit with managerial employee values focused on efficient and effective quality improvement.

The high-managerial hegemonist organization values that are considered appropriate to face the social, economic and political developments are at right angles to the more professional employee values that are generally held within universities. The historical inheritance of these institutions, in which collegiality, academic freedom and autonomy are upheld as cherished values, does not easily mix with the new tasks that go with the concept of managerialism and the new societal demands for public accountability, efficiency and competitiveness (Salter and Tapper, 2002; Townley, 1997). A vast amount of studies suggest that the conflict in universities between hegemonist organization values and professional employee values leads to unintended behaviour of the individual

employees, such as lower organizational commitment (Bryson, 2004; Deem, 1998; Prichard and Willmott, 1997). For example, Henkel and Kogan (1996) argue that academics do not really respond warmly to attempts to erode their collegiality and academic autonomy. Bocock and Watson (1994: 124–5) note that 'many academics have felt dispirited, undervalued, diminished in their autonomy and have suffered an increasing lack of empathy for the goals of institutions'. As a high level of organizational commitment has been found important for the realization of high quality performances (Lee, 1971; Mowday *et al.*, 1982; Peters and Waterman, 1982; Porter, 1985), some authors claim that managerialism, which is aimed at efficient and effective quality improvement, works against its own intentions (e.g. Bryson, 2004; Chan, 2001; Trow, 1994). This situation is what we call a 'managerialism contradiction'.

As discussed, the separatist and hegemonist organization values match professional and managerial employee values, respectively. In order to have organizational commitment and, consequently, quality of job performance, there are two possible options to 'solve' the managerialism contradiction. The first option is to align the organization values with the professional employee values through reversing the development that universities are forced to replace their separatist academic identity by a hegemonist one. The second option is to align the employee values with the hegemonist organization values through managing the employees so that their values match the identity, and organizational commitment emerges. The trend to replace the separatist identity by a hegemonist identity results from social, economic and political developments that are practically irreversible (OECD, 1996). Therefore, the first option to solve the managerialism contradiction appears impracticable. As a result, the second option remains: managing the university employees so that they become committed to the hegemonist identity. Empirical studies on the development of organizational commitment in universities or faculties with different academic identities are scarce. This paper therefore examines which factors affect university employees' organizational commitment in two faculties with different academic identities (separatist and hegemonist).

The paper is organized as follows. The next section describes our analytical framework, which is based on a critical reconsideration of the so-called 'human resource-based view of the firm', positioned against the background of academic identities. This is followed by a review of empirical studies that have examined the development of organizational commitment among highly educated professionals in different organizational settings. We then discuss the method used for our study. The empirical analyses and results are then presented and discussed. The paper closes with conclusions and limitations.

Analytical framework

As managing university employees so that they become committed to the hegemonist identity appears a feasible option to solve the managerialism contradiction, Human resource management (HRM) practices seem necessary to realize the shift from professional to managerial values among employees. A theoretical perspective which seems to be very helpful in analysing the effects of HRM practices on organizational commitment is the human resource-based view of the firm (Beer *et al.*, 1995; Doorewaard and Meihuizen, 2000; Flood *et al.*, 1995; Guest, 1997; Paauwe, 1994). In this view, HRM practices can result in competences such as organizational commitment. This human resource-based line of reasoning has, however, been criticized by several authors (e.g. Carr, 2001; Downing, 1997; Watson, 2002). Doorewaard and Benschop

direct their critique towards 'the utilitarian and formal/technical assumptions of this view, because it reduces human beings to "human resources"' (2003: 272). Considering employees as human beings instead of human resources exposes that their commitment is intertwined with causal factors or 'antecedents' (Lee, 1971; Mowday *et al.*, 1982; Steers, 1977), apart from human resource management practices.

Figure 1 presents the analytical framework, which is based on above reasoning that HRM practices (1) and antecedents (2) affect organizational commitment (3). As the purpose of this paper is to examine which factors affect university employees' organizational commitment in two faculties with different academic identities (separatist and hegemonist), we position this analytical framework within the academic identity (4). The arrows (a) to (b3) represent the effects of the HRM practices and the three antecedent categories on organizational commitment.

The remainder of this section elaborates on the four elements (1) to (4) as applied in our study. The relationships (a) to (b3) are discussed in the following section.

HRM practices (1)

Although many studies focus exclusively on private sector companies (e.g. Beardwell and Holden, 2001; Becker and Gerhart, 1996; Pfeffer and Veiga, 1999), recently buck and Watson (2002), based on Arthur (1994), used the 'commitment human resource system' for measuring the potential influences of HRM practices on the organizational commitment of higher education staff employees. We have adapted Buck and Watson's system resulting in the following nine HRM practices: decentralization, compensation, participation, training/development, employment security, social interactions, management style, communication, and performance appraisal.

Antecedents of organizational commitment (2)

Previous research by Lee (1971), Mowday *et al.* (1982), and Steers (1977) reveals that organizational commitment is related to three antecedent categories: personal variables, job and role characteristics, and structural factors. Age, gender, educational level, need for achievement, organizational tenure, positional tenure and family responsibility are examples of personal variables. Job and role characteristics contain career mobility, job challenge, job level, role conflict, role ambiguity, level of autonomy and working hours. Finally, social involvement, personal importance and formalization are structural factors.

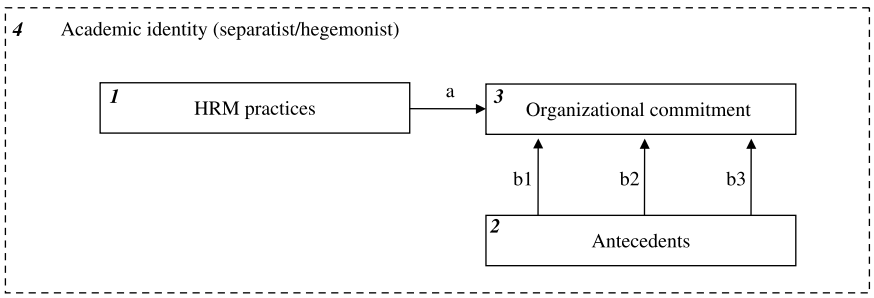

Figure 1 *Analytical framework*

Organizational commitment (3)

The concept of organizational commitment is usually divided into three subcomponents. Meyer and Allen (1997) refer to these constructs as affective, continuance and normative commitment. Affective commitment ('want to remain') covers the individual's attachment to social relationships and to the organization. It develops when an individual becomes involved in, recognizes the value-relevance of, and/or derives his or her identity from the organization. Continuance commitment ('need to remain') involves social roles or positions from which individuals derive their perception of the cost associated with leaving the organization and the rewards related to participation in the organization. Normative commitment ('ought to remain') concentrates on the internalization of norms and values and on inner convictions. It results in an individual's feeling of moral obligation to remain with the organization.

Academic identity (4)

As discussed above, Stiles (2004) distinguishes three theoretical perspectives of academic identity that refer to particular levels of managerialism: the separatist, the integrationist, and the hegemonist perspective. Levels of managerialism do not only differ between countries, but also within countries and even within universities. In this paper we examine which factors affect organizational commitment among university employees in two faculties with different identities. We use the identities that Stiles (2004) distinguishes to characterize the faculties.

Expected effects on organizational commitment

Research on the effects of HRM practices and antecedents on organizational commitment in faculties with different academic identities is limited. As academic employees are generally highly educated, we reviewed the existing findings on the effects of human resource management practices and antecedents on organizational commitment among professional or highly educated employees in various organizations and sectors (see Smeenk *et al.*, forthcoming). This section briefly discusses the relationships.

Relationships of HRM practices with organizational commitment (a)

With respect to human resource management practices, some authors argue that *decentralization* is a tool for increasing organizational commitment (Bateman and Strasser, 1984; Knoke, 1988). The level of *compensation* is found to have no significant influence on any form of organizational commitment (e.g. Bhagat and Chassie, 1981; Shore and Barksdale, 1998). According to Wallace (1995a) and Mayer and Schoorman (1998), *participation* positively affects organizational commitment, whereas Wallace (1995b) found a non-significant relationship. The level of *training/development* activities does not correlate with organizational commitment (Igbaria and Wormley, 1992; Shore and Barksdale, 1998). The handling of employees' complaints or grievances through formal employee grievance procedures (*employment security*) may strengthen both the employees' willingness to be continuously part of the organization and the moral duty to give back a bit of confidence to the organization, leading to significant relationships with organizational commitment (e.g. Shore and Barksdale, 1998).

Social interactions are positively related to organizational commitment (e.g. Wallace, 1995a). Furthermore, only the participative *style of management* has a significant relationship with organizational commitment (Jermier and Berkes, 1979). The other

styles focused on role clarification, rule specification, work assignment, support, people, organization, structure, or consideration are uncorrelated with organizational commitment (Bruning and Snyder, 1983; Jermier and Berkes, 1979). The correlation between organizational commitment and *communication* is significantly positive (Galunic and Anderson, 2000; Knoke, 1988). Likewise, the influence of *performance appraisal* on organizational commitment is found to be positive. However, this correlation is based on the study of Slocombe and Bluedorn (1999) only.

Relationships of personal variables with organizational commitment (b1)

As to personal variables, the relationship between *age* and organizational commitment is predominantly positive (e.g. Banai and Reisel, 1993; Jans, 1989). With respect to *gender*, Knoke (1988) showed that women are less committed to an organization than their male counterparts, but many other authors found a non-significant relationship (e.g., Igbaria and Wormley, 1992; Van Dyne and Ang, 1998). Further, previous studies (e.g. Cohen, 1999; Mayer and Schoorman, 1998) revealed negative relationships between *educational level* and continuance and normative organizational commitment, although various other studies did not find a significant relationship (e.g. Knoke, 1988).

Bateman and Strasser (1984) and Cohen (1992) found that the *need for achievement* is not significantly related to organizational commitment. Further, affective and continuance organizational commitment increase with the years spent in the organization (*organizational tenure*) (e.g. Cohen, 1999) but they are not significantly related to the length of positional service (*positional tenure*) according to Bateman and Strasser (1984). However, Cohen (1999) found a positive relationship between positional tenure and affective organizational commitment. Finally, the *family responsibility* of an employee generally has a non-significant relationship with organizational commitment (e.g. Bhagat and Chassie, 1981; Wallace, 1995a, 1995b), although Jans (1989) found a negative and Cohen (1999) a positive effect.

Relationships of job and role characteristics with organizational commitment (b2)

Concerning job and role characteristics, both *career mobility* and *job challenge* are found to be positively correlated with organizational commitment (e.g. Bhagat and Chassie, 1981; Kirchmeyer, 1995, respectively). The relationship of the latter with *job level* is not significant (e.g. Banai and Reisel, 1993). Further, 'the opposition of any combination of role pressures' (Hrebiniak and Alutto, 1972: 556), i.e. *role conflict*, may stress the development of organizational commitment (e.g. Glisson and Durick, 1988; Leiter and Maslach, 1988). *Role ambiguity* has a negative correlation with commitment as well (e.g. Jaros *et al.*, 1993; Mayer and Schoorman, 1998). The *level of autonomy* in the work place is found to be very important as autonomy is significantly positively related to organizational commitment (e.g. Hall *et al.*, 1970). Finally, there appears to be no effect of *working hours* on organizational commitment (Bhagat and Chassie, 1981).

Relationships of structural factors with organizational commitment (b3)

Employees' commitment may be influenced by structural factors such as *social involvement* with colleagues (Igbaria and Wormley; 1992), although other researchers (e.g. Hall *et al.*, 1970) found this factor less important for affecting organizational commitment. The opportunities for an employee to fulfil his or her self-esteem and the feeling that his or her work is important for the well-being of the organization (*personal importance*) are shown to be positively correlated with organizational commitment (e.g.

Buchanan, 1974). Finally, the level of formal written rules and procedures (*formalization*) is found to have no significant relationships with any of the commitment constructs (Wallace, 1995a, 1995b).

Summary of expected relationships

We used the review findings above to construct hypotheses for our empirical analysis of the effects of HRM practices and antecedents on university employees' organizational commitment. Table 1 presents our set of hypotheses concerning the relationships between the HRM practices and affective, continuance and normative organizational commitment, and between the antecedents and the three organizational commitment constructs. A plus sign (+) indicates that most of the reviewed studies found positive relationships, and a minus sign (−) implies that most report negative effects. A zero (0) is reported when no association was found.

The remainder of this paper discusses the empirical testing of the hypotheses in two faculties with different academic identities.

Table 1 *Overview of relationships between predictors and organizational commitment*

	[3] Organizational commitment		
	Affective	*Continuance*	*Normative*
[1] HRM practices			
Decentralization	+	+	+
Compensation	0	0	0
Participation	+	+	+
Training/development	0	0	0
Employment security	+	+	+
Social interactions	+	+	+
Management style	0	0	0
Communication	+	+	+
Performance appraisal (high)	+	+	+
[2.1] Antecedents: personal variables			
Age	+	+	+
Gender (male)	0	0	0
Educational level	0	−	−
Need for achievement	0	0	0
Organizational tenure	+	+	0
Positional tenure	+	0	0
Family responsibility	0	0	0
[2.2] Antecedents: job and role characteristics			
Career mobility	+	+	+
Job challenge	+	+	+
Job level	0	0	0
Role conflict	−	−	−
Role ambiguity	−	−	−
Level of autonomy	+	+	+
Working hours	0	0	0
[2.3] Antecedents: structural factors			
Social involvement	0	0	0
Personal importance	+	+	+
Formalization	0	0	0

Method

Sample

The study draws on a survey conducted among university employees in two Dutch faculties allied to the same university, in the Summer of 2004. A Web survey questionnaire, which has been tested among a number of pilot respondents, was administered to the 412 employees of the two faculties. All employees associated with teaching, research and support were included in the sample. The questionnaire consisted of 88 questions and was structured to encourage the respondents to reflect on their past and present experiences in the faculty. We conducted the survey across the Internet as all university staff are generally provided with access to the Net. Although Web surveys are relatively new for data collection, several researchers found support for use of the medium in terms of acceptable response rates (e.g. Cobanoglu *et al.*, 2001; Sills and Song, 2002). Our useable response rate was 33 per cent ($n = 136$).

Table 2 compares the sample proportions with respect to gender, age and employment with the figures for the population of academic staff in the Netherlands (VSNU, 2004). As can be seen, the sample does not differ significantly from the population with respect to these characteristics.

Measurements

Standard and study-specific measures are provided for the HRM practices, the antecedents, the three organizational commitment constructs, and the academic identity.

Human Resource Management practices We measured the academics' perceptions of *decentralization* with a four-item scale based on the original instrument of Arthur (1994). In order to measure how the academics feel about the level of *compensation*, the university employees were asked to rate their own salary on a scale from 1 (= very inferior to my efforts) to 5 (= passes my efforts easily) (cf. Boyer *et al.*, 1994). Following Gaertner and Nollen (1989), perceived *participation* was measured with a four-item scale. To measure the level of *training/development*, we adapted Arthur's

Table 2 *Sample and population frequencies*

	Sample (n = 136)	*Population (N = 51307)*
Gender ($\chi^2_1 = 2.47$) [1)]		
Male	69.4	62.6
Female	30.6	37.4
Age ($\chi^2_2 = 1.51$) [2)]		
< 35	39.7	38.3
35–54	47.8	45.3
55 +	12.5	16.4
Employment ($\chi^2_1 = .09$) [1)]		
Full-time	66.9	65.7
Part-time	33.1	34.3

Notes:
Figures are percentages; (1) As the critical value at $\alpha = .05$ and one degree of freedom is 3.841, the χ^2-score is not significant. The sample values do not differ significantly from the population values. (2) As the critical value at $\alpha = .05$ and two degrees of freedom is 5.991, the χ^2-score is not significant. The sample values do not differ significantly from the population values.

instrument (1994) to make it more appropriate for measuring training and development within the context of higher education. Academics were asked to indicate how many days per year they obtained off-the-job activities away from their immediate work area activities (classes or workshops), on-the-job general skills training not directly related to their current jobs, and on-the-job skills training directly related to their current jobs (communication or group problem solving). We summed the ratings on the items to generate a single composite score. Based on Gaertner and Nollen (1989), perceived *employment security* was measured by a single item asking the respondents to indicate whether the faculty does all it can do to avoid layoffs.

To measure the academics' perception of *social interactions*, we used Sheldon's instrument (1971), including the items 'I frequently have off-the-job contacts with my work colleagues', 'I feel very much a part of my work group', and 'I feel very much a part of my faculty'. To measure the perceived *style of management*, the academics were asked which management style fits best their manager or management team (Blake and Mouton, 1985): (1) Impoverished Management (laissez-faire management); (2) Country Club Management (friendly atmosphere); (3) Middle of the Road Management (balancing work and people); (4) Authority–Compliance (efficiency); and (5) Team Management (trust and respect). We used the following items to measure the academics' perception of the *communication* level in the faculty (1= strongly disagree, 5 = strongly agree): 'I am adequately informed about what is currently going on in the faculty', and 'I am adequately informed about changes that affect my job' (cf. DeCotiis and Summers, 1987). Finally, the style of *performance appraisal* (judgemental-oriented or developmental-oriented) as experienced by the academics was measured by asking them which of the two styles best fits their faculty.

Antecedents of organizational commitment The personal variables *age*, *gender*, *educational level*, *organizational tenure*, *positional tenure* and *family responsibility* were recorded using six single-item self-report responses. We measured the *need for achievement* by asking the university employees to indicate their (dis)agreement with propositions about the importance to perform well and to work hard (1 = totally disagree, 5 = totally agree).

We measured the job and role characteristics *career mobility* and *job challenge* by the (dis)agreement (1 = totally disagree, 5 = totally agree) of academics with propositions on opportunities for career development and the challenge of their work, respectively (cf. Allen and Meyer, 1990). *Job level* was measured by a single-item scale consisting of nine position categories ranging from 'dean' to 'other personnel'. Next, *role conflict* and *role ambiguity* were measured by using the questionnaire items that loaded .60 or higher in the study of Rizzo *et al.* (1970) (1 = totally disagree, 5 = totally agree). The *autonomy* measure used the adapted instrument of Hackman and Lawler (1971). Finally, part-time or full-time employment (*working hours*) was measured by a single-item self-report response to the office hours that are regularly scheduled, excluding any paid and unpaid overtime.

With respect to structural factors, we measured the feeling of *social involvement* with Hackman and Lawler's (1971) instrument, which we adapted to our study. (Dis)agreement with the Allen and Meyer (1990) proposition 'I feel my contribution is important for the larger aims of the faculty' was taken as an indication of *personal importance*. To measure *formalization*, we asked the respondents whether they agreed or disagreed with the proposition that the faculty has clear rules and regulations that everyone is expected to follow closely (cf. Sashkin and Morris, 1987).

Organizational commitment Organizational commitment can be measured by a number of different scales (e.g. Cook and Wall, 1980; Penley and Gould, 1988; Porter *et al.*, 1974). Allen and Meyer (1990) developed the 24-item Organizational Commitment Questionnaire (OCQ), which has become a widely used instrument to measure *affective*, *continuance* and *normative organizational commitment* (e.g. Bateman and Strasser, 1984; Buck and Watson, 2002; Gaertner and Nollen, 1989). We also used the OCQ, which consists of three subscales: the Affective Commitment Scale (ACS), the Continuance Commitment Scale (CCS), and the Normative Commitment Scale (NCS). We tried to improve the scale items by reducing item ambiguity and deleting equivalent and irrelevant items, and used six items for each subscale. Responses were made on a five-point disagree–agree continuum.

Academic identity The managerial developments involve seven dimensions (Hood, 1995): extent of disaggregation (expansion of student numbers and diversification of study disciplines); competition between universities or faculties; use of management practices drawn from the private sector; stress on discipline and parsimony in resource use; move towards more hands-on management; move towards more explicit and measurable standards of performance; and attempts to control according to pre-set output measures. Academics have been asked to indicate to what extent they perceive these dimensions of change apply to their faculty. The ratings on the items were summed to generate a composite score. As a separatist setting is generally characterized by a low level of managerialism and a hegemonist context by a high level of managerialism, we used the level of managerialism as an indicator for the academic identity.

Common method variance

To control for the potential effects of common method variance (Podsakoff *et al.*, 2003), we applied different response formats for the measurement of HRM practices (single choice question, numerical entry, five-point Likert scale), antecedents (single choice with and without optional text-response, date and numerical entry, five-point Likert scale), organizational commitment (five-point Likert scale), and managerialism or academic identity (four-point Likert scale). Moreover, on the basis of qualitative research on the formulation of the items, we improved scale items by reducing item ambiguity, social desirability and demand characteristics, and we deleted equivalent and irrelevant items. Because we applied tested and widely used scales to measure most of the concepts, we were careful in altering the scale formats and scale values in order to preserve the original scale validities.

We conducted the Harman's one-factor test (Podsakoff and Organ, 1986) to check for the possible influence of common method variance. As the unrotated factor analysis of the variables used in the study resulted in 21 factors, with the first factor explaining only 16 per cent of the common variance, our findings are not much affected by the problem of common method variance.

Factor analysis

For the purpose of data reduction, we conducted Exploratory Factor Analysis (EFA) using principal-axis extraction. We used two criteria for determining the appropriateness of the factor model: Eigenvalue (> 1.00) and communality ($> .20$). The factor matrices were rotated to 'simple structure' using either oblique rotation (direct oblimin), when the factors were expected to have intercorrelations, or orthogonal rotation (varimax), when the factors were expected to have no intercorrelations.

Table 3 summarizes the results of the factor analyses for the factors affecting organizational commitment (HRM practices and the antecedents) and the managerialism level, including the number of items, Cronbach's alpha and the total explained variance.

The varimax-rotated factor matrix of the dependent variables, i.e., the organizational commitment constructs, is reported in Table 4. The table also shows the reliability of the three sets of items determined by Cronbach's alpha (α), the communalities (h^2) of the items, the loadings, and the total explained variance.

The data in Table 4 reveal that the commitment scales possess quite acceptable psychometrical properties. All factors account for a passable proportion of the variance in the variables and the reliability coefficients suggested a reasonable degree of internal consistency for each scale. Also, the three factors appear to be uncorrelated. These results support Allen and Meyer's (1990) findings that affective, continuance and normative commitment are conceptually and empirically separable components of organizational commitment.

Results and discussion

To characterize the identities of the two sample faculties, we used the perspectives outlined by Stiles (2004). We tested whether the two faculties had significantly different levels of managerialism (i.e. a different academic identity). Descriptive statistics and elements of the independent samples T-test are shown in Table 5.

As the calculated t-value of 2.494 falls in the rejection region, we concluded that the two faculties have a significant different mean (p-value = .014), equal variances assumed (p-value = .231), and, therefore, a different academic identity. Because Faculty 1 has a significantly higher level of managerialism than Faculty 2, the former

Table 3 *Factor analyses of HRM practices, antecedents and managerialism*

	Number of items	*Cronbach's alpha*	*All communalities larger than*	*All pattern loadings larger than*
Factors of HRM practices				
Decentralization	4	.63	.41	.54
Participation	4	.70	.36	.42
Social interactions	2	.49 (.66) [1)]	.31	.43
Communication	2	.71	.50	.67
Total explained variance: 47.1%				
Factors of antecedents				
Role conflict	2	.63	.34	.43
Role ambiguity	3	.69	.27	.50
Level of autonomy	3	.68	.37	.59
Social involvement	3	.56 (.72) [1)]	.32	.32
Total explained variance: 48.9%				
Managerialism	6	.65	.38	.46
Total explained variance: 46.1%				

Notes:
(1) As the original reliability may seem rather low, we calculated the six-item reliability (the coefficient between brackets) using the Spearman–Brown formula: $r_{kk} = k*r_{xx} / (1 + [k-1]*r_{xx})$, where r_{kk} is the reliability of the scale that has k times as much items as the original scale, r_{xx} is the reliability of the original scale, and k is the multiplier.

Table 4 *Factor analyses of organizational commitment*

Dimensions and scale items	h^2	*Factor matrix* [1]		
		I	*II*	*III*
Affective organizational commitment ($\alpha = .702$)				
I enjoy discussing the faculty in a positive sense with people outside it	.34			.59
I really feel as if the faculty's problems are my own	.28			.41
I do not feel like 'part of the family' at the faculty (R) [2]	.42			.64
The faculty has a great deal of personal meaning for me	.65			.78
I would be very happy to spend the rest of my career at this faculty [3]	.			.
I easily become as attached to another organization as I am to this one (R)	.			.
Continuance organizational commitment ($\alpha = .741$)				
I am afraid of what might happen if I quit my job without having another one lined up	.36	.56		
It would be very hard for me to leave the faculty right now	.54	.70		
Too much in my life would be disrupted if I decided to leave the faculty now	.59	.76		
I could leave the faculty at no cost now (R)	.36	.58		
I feel that I have too few options to consider leaving the faculty	.	.		
I continue to work for the faculty as leaving would require considerable personal sacrifice	.	.		
Normative organizational commitment ($\alpha = .731$)				
If I got offered a job elsewhere I would feel uncomfortable to leave this faculty	.46		.67	
I believe in the value of remaining loyal to one organization	.50		.64	
Things were better when people stayed with one organization for most of their careers	.60		.71	
I think that wanting to be a 'company man or woman' is still sensible	.32		.54	
Employees generally move from organization to organization too often	.		.	
I do not mind when employees move from organization to organization (R)	.		.	
Total explained variance: 45.2 %		15.7	15.1	14.4

Notes:
(1) Roman numerals refer to the order in which the factors appeared in the orthogonal (varimax) rotated solution using principal-axis factoring. Factor loadings less than .40 are not reported. (2) Reversed items are indicated with (R). (3) Items in italics were excluded from the analyses because of low communality ($<.20$).

Table 5 *Descriptive statistics and independent samples test of level of managerialism*

	N	*Mean*	*Standard deviation*
Faculty 1	81	16.877	3.367
Faculty 2	43	15.256	3.586

	Levene's test for equality of variances		*T-test for equality of means*				
	F	*Sig.*	*t*	*df*	*Sig. (2-tailed)*	*Mean difference*	*Standard error difference*
Equal variances assumed	1.447	.231	2.494	122	.014	1.621	.650
Equal variances not assumed			2.446	81.164	.017	1.621	.663

faculty tends towards a hegemonist identity. As the separatist identity views an academic organization as a segregated and traditional institution with collegial strategies, we link this identity to the less managerial Faculty 2.

To obtain parsimonious models for the effects of HRM practices and antecedents on academics' organizational commitment in the two faculties, we conducted stepwise multiple regression analyses. As the commitment factors are uncorrelated, the effects of HRM practices and antecedents were analysed for each construct of organizational commitment separately in both faculties. The standardized regression coefficients and the adjusted R^2's are presented in Table 6. This table also indicates whether the literature-based hypotheses presented in Table 1 were confirmed (C) or rejected (R).

Note that our interest focuses on the propensity of outcomes, rather than their dynamic character. Like all cross-sectional analyses, this study is unable to solve the ambiguity in the direction of causality. Inferences about causal processes are, therefore, tentative and partial at best.

Regarding the HRM practices it appears that decentralization and compensation have positive effects on affective commitment in the separatist Faculty 2 only. Further, participation and social interactions are important in both faculties, although in the hegemonist Faculty 1 the effect of participation is positive on affective commitment, whereas in the separatist Faculty 2 the effect is negative on both affective and continuance organizational commitment. We suggest that the positive effect of decentralization and the negative effect of participation among university employees in the separatist Faculty 2 may point at a preference, in line with the long-established values of academic freedom and autonomy, to determine themselves their daily work (decentralization) instead of only have a say in decisions affecting their work (participation). Further, training/development has a negative effect on affective commitment in the separatist Faculty 2. A possible explanation is that this HRM practice lets employees realize that they are valuable to their current organization but also to other organizations in which they can deploy their knowledge and experiences.

With regard to the personal variables, in the hegemonist Faculty 1 age and organizational tenure have positive effects on affective and normative commitment, respectively, whereas in the separatist Faculty 2 positional tenure positively affects the employees' continuance commitment.

Concerning job and role characteristics, career mobility is important for increasing the continuance commitment of employees in the separatist Faculty 2. Job level is significant in both faculties, although the other scientific staff (such as post-doc researchers and research fellows) are more normatively committed than the professors in Faculty 1, whereas the PhD's are more affectively committed than their professor counterparts in Faculty 2. Our findings thus reveal that a higher job level does not necessarily lead to more committed employees. In current times of reducing expenditures and expanding universities, academic employees have an increased teaching load which often expanded at the expense of research time. Because post-doc researchers, research fellows and PhDs generally have considerable research time, it might be that they feel privileged to do their work, leading to stronger feelings of organizational commitment. Further, the academics in Faculty 1 are less normatively committed when they perceive higher levels of autonomy. This is quite remarkable because academic employees' work is said to benefit from autonomy *and* because we found this relation in the hegemonist faculty, which is characterized by attempts to erode the employees' autonomy. This finding, however, supports the research of Boselie *et al.* (2003) in which they question the employee need for some degree of freedom, as this is assumed by the 'high performance' paradigm. It seems that not every university employee wants and needs a high level of autonomy.

Table 6 *Regression analyses*

	[3] Organizational commitment											
	Faculty 1: hegemonist						*Faculty 2: separatist*					
	Affective		*Continuance*		*Normative*		*Affective*		*Continuance*		*Normative*	
	β	*C/R*	*β*	*C/R*	*β*	*C/R*	*β*	*C/R*	*β*	*C/R*	*β*	*C/R*
[1] HRM practices												
Decentralization							.51**	R				
Compensation							.31*	R				
Participation	.32*	C					−.30*	R	−.70**	R		
Social interactions	.28*	C	.41**	C	.33*	C	.38*	C				
Training/development							−.50*	R				
[2.1] Antecedents: personal variables												
Age	.31*	C										
Organizational tenure					.43**	C						
Positional tenure									.52*	R		
[2.2] Antecedents: job and role characteristics												
Career mobility									.58*	C		
PhD (1)							.38*	R				
Other scientific staff (1)					.30*	R						
Level of autonomy					−.32*	R						
Working hours			−.32*	R	−.25*	R						
[2.3] Antecedents: structural factors												
Social involvement			−.38*	R								
Personal importance	.29*	C			.18*	C						
Adjusted R^2	45.6%**		35.4%**		51.6%**		71.4%**		37.7%*		24.9%*	

Notes:
* Significant at $p < .01$. ** Significant at $p < .001$. (1) Dummy variable of 'job level' consisting of the categories: professor (reference category), lecturer or senior lecturer, PhD, other scientific staff, other position.

Another possible explanation for this finding is that a high level of autonomy results in an alienation from the workplace and, consequently, lower levels of organizational commitment. Further, more working hours lead to lower levels of continuance and normative organizational commitment among the employees in Faculty 1.

Finally, structural factors are important in Faculty 1 only. Although Gersick *et al.* (2000) pinpoint the strategic importance of social relations in academia, our study reveals that social involvement has a significantly negative impact on academics' continuance commitment. This negative relationship seems to bolster the image of scientists as persons who prefer to work alone, as far as their continuance organizational commitment is concerned. Personal importance positively affects both affective and normative organizational commitment.

Conclusion

This study has empirically examined the effects of nine human resource management practices and three antecedent categories on affective, continuance and normative organizational commitment among university employees in two Dutch faculties with different academic identities (separatist versus hegemonist).

The results reveal that in the separatist faculty decentralization, compensation, training/development, positional tenure, and career mobility have significant effects. In the hegemonist faculty age, organizational tenure, level of autonomy, working hours, social involvement, and personal importance significantly affect the organizational commitment. Participation, social interactions, and job level are factors that are important in both faculties, although in the separatist faculty the effect of participation is negative, whereas in the hegemonist faculty the effect of participation is positive. The results indicate that organizational commitment is affected differently among faculties with different identities. In other words, there are distinct sets of factors that are important for influencing organizational commitment in organizations with distinct identities. This finding empirically supports the configurational approach as proposed by Delery and Doty (1996) and the 'bundles fit' of Guest (1997). Both perspectives argue that different configurations or 'bundles' of HRM practices, in order to achieve superior performance, are suited for organizations with different identities.

Our findings have implications for both theory and practice. By presenting significant relationships between several HRM practices and antecedents and organizational commitment that both replicate and challenge previously found relationships, our study contributes to the theory on the effects of HRM practices and antecedents on organizational commitment. Further, as our research demonstrates that a faculty's academic identity influences the set of HRM practices and antecedents affecting organizational commitment, practitioners in the field of university HRM should be careful in applying 'generally approved' human resource management practices. We think it is wise to account for the academic identity while implementing a HRM strategy. After all, our research demonstrates that, for instance, a HRM strategy focused on participation is suitable for increasing affective organizational commitment in a hegemonist faculty, but can be detrimental to organizational commitment in a separatist faculty.

We are aware that the research has some limitations that must be considered in evaluating the study's findings. First, our hypotheses are mainly based on Anglo-Saxon studies whereas the sample faculties are part of the continental social-democratic Netherlands. Differences between the cultures of the literature review countries and the sample country may explain some rejections of hypotheses. Second, the respondents were all employed at the same university in the Netherlands. Although we have no reason

to believe that the relations observed are unique to the institution or country, generalizations to other universities and countries should be made with caution. For instance, the loosely coupling between the Dutch academics and their organizations, the financial structures, the formal regulations, and the steering arrangements that characterize the Dutch university system (De Boer *et al.*, forthcoming) may all have some impact on the empirical findings. Unfortunately, we are unable to compare our results with those from other countries as they are not available. A replication of our study in other European countries with either pure continental corporate models (e.g. Germany) or pure Anglo-Saxon models (e.g., United Kingdom) could reveal whether our results are country-specific or may be generalized to other countries. In this international replication, not only the differences between faculties but also the differences between countries may be addressed.

Acknowledgement

The authors would like to thank the reviewers for their valuable comments on an earlier version of this paper.

References

Allen, N.J. and Meyer, J.P. (1990) 'The Measurement and Antecedents of Affective, Continuance and Normative Commitment to the Organization', *Journal of Occupational Psychology*, 63(1): 1–18.

Arthur, J.B. (1994) 'Effects of Human Resource Systems on Manufacturing Performance and Turnover', *Academy of Management Journal*, 37(3): 670–87.

Aucoin, P. (1990) 'Administrative Reform in Public Management: Paradigms, Principles, Paradoxes and Pendulums', *Governance: An International Journal of Policy and Administration*, 2(2): 115–37.

Banai, M. and Reisel, W.D. (1993) 'Expatriate Managers' Loyalty to the MNC: Myth or Reality?' An Exploratory Study', *Journal of International Business Studies*, 24(2): 233–48.

Bateman, T.S. and Strasser, S. (1984) 'A Longitudinal Analysis of the Antecedents of Organizational Commitment', *Academy of Management Journal*, 27(1): 95–112.

Beardwell, I. and Holden, L. (2001) *Human Resource Management: A Contemporary Approach*. London: Financial Times/Prentice Hall.

Becker, B.E. and Gerhart, B. (1996) 'The Impact of Human Resource Management on Organizational Performance: Progress and Prospects', *Academy of Management Journal*, 39(4): 779–801.

Beer, M., Eisenstat, R.A. and Biggadike, E.R. (1995) 'Strategic Change: A New Dimension of Human Resource Management'. In Ferris, G.R., Rosen, S.D. and Barnum, D.T. (eds) *Handbook of Human Resource Management*. Oxford: Blackwell, pp. 115–38.

Bhagat, R.S. and Chassie, M.B. (1981) 'Determinants of Organizational Commitment in Working Women: Some Implications for Organizational Integration', *Journal of Occupational Behaviour*, 2(1): 17–30.

Blake, R.R. and Mouton, J.S. (1985) *The New Managerial Grid III*. Houston, TX: Gulf Publishing.

Bleiklie, I. (2001) 'Towards European Convergence of Higher Education Policy?', *Higher Education Management*, 13(3): 9–29.

Bocock, J. and Watson, D. (1994) *Managing the University Curriculum: Making Common Cause*. Buckingham: Society for Research into Higher Education/Open University Press.

Boselie, P., Paauwe, J. and Richardson, R. (2003) 'Human Resource Management, Institutionalization and Organizational Performance: A Comparison of Hospitals, Hotels and Local Government', *International Journal of Human Resource Management*, 14(8): 1407–29.

Boyer, E.L., Altbach, P.G. and Whitelaw, M.J. (1994) *The Academic Profession: An International Perspective.*Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Bruning, N.S. and Snyder, R.A. (1983) 'Sex and Position as Predictors of Organizational Commitment', *Academy of Management Journal*, 26(3): 485–91.

Bryson, C. (2004) 'The Consequences for Women in the Academic Profession of the Widespread Use of Fixed Term Contracts', *Gender, Work and Organization*, 11(2): 187–206.

Buchanan, B. (1974) 'Building Organizational Commitment: The Socialization of Managers in Work Organizations', *Administrative Science Quarterly*, 19(4): 533–46.

Buck, J.M. and Watson, J.L. (2002) 'Retaining Staff Employees: The Relationship between Human Resources Management Strategies and Organizational Commitment', *Innovative Higher Education*, 26(3): 175–93.

Carr, A. (2001) 'Understanding Emotion and Emotionality in a Process of Change', *Journal of Organizational Change Management*, 14(5): 421–36.

Chan, K. (2001) 'The Difficulties and Conflict of Constructing a Model for Teacher Evaluation in Higher Education', *Higher Education Management*, 13(1): 93–111.

Cobanoglu, C., Warde, B. and Moreo, P.J. (2001) 'A Comparison of Mail, Fax and Web-Based Survey Methods', *International Journal of Market Research*, 43(4): 441–52.

Cohen, A. (1992) 'Antecedents of Organizational Commitment across Occupational Groups: A Meta-analysis', *Journal of Organizational Behavior*, 13(6): 539–58.

Cohen, A. (1999) 'Relationships among Five Forms of Commitment: An Empirical Assessment', *Journal of Organizational Behavior*, 20(3): 285–308.

Cook, J. and Wall, T. (1980) 'New Work Attitude Measures of Trust, Organisational Commitment and Personal Need Non-Fulfilment', *Journal of Occupational Psychology*, 53: 39–52.

De Boer, H., Enders, J. and Leisyte, L. (forthcoming) 'On Striking the Right Notes: Shifts in Governance and the Organizational Transformation of Universities', *Public Administration*.

DeCotiis, T.A. and Summers, T.P. (1987) 'A Path Analysis of a Model of the Antecedents and Consequences of Organizational Commitment', *Human Relations*, 40(7): 445–70.

Deem, R. (1998) '"New Managerialism" and Higher Education: The Management of Performances and Cultures in Universities in the United Kingdom', *International Studies in Sociology of Education*, 8(1): 47–70.

Delery, J.E. and Doty, D.H. (1996) 'Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurational Performance Predictions', *Academy of Management Journal*, 39(4): 802–35.

Doorewaard, H. and Benschop, Y. (2003) 'HRM and Organizational Change: An Emotional Endeavour', *Journal of Organizational Change Management*, 16(3): 272–86.

Doorewaard, H. and Meihuizen, H. (2000) 'Strategic Performance Options in Professional Service Organisations', *Human Resource Management Journal*, 10(2): 39–57.

Downing, S.J. (1997) 'Learning the Plot', *Management Learning*, 28(1): 27–44.

Flood, P.C., Gannon, M.J. and Paauwe, J. (1995) 'Competitive Advantage through Strategic Innovations in Human Resource Management'. In Flood, P.C., Gannon, M.J. and Paauwe, J. (eds) *Managing without Traditional Methods: International Innovations in Human Resource Management*. Wokingham: Addison-Wesley, pp. 307–26.

Gaertner, K.N. and Nollen, S.D. (1989) 'Career Experiences, Perceptions of Employment Practices, and Psychological Commitment to the Organization', *Human Relations*, 42(11): 975–91.

Galunic, D.C. and Anderson, E. (2000) 'From Security to Mobility: Generalised Investments in Human Capital and Agent Commitment', *Organization Science*, 11(1): 1–20.

Gersick, C.J.G., Bartunek, J.M. and Dutton, J.E. (2000) 'Learning from Academia: The Importance of Relationships in Professional Life', *Academy of Management Journal*, 43(6): 1026–44.

Glisson, C. and Durick, M. (1988) 'Predictors of Job Satisfaction and Organizational Commitment in Human Service Organizations', *Administrative Science Quarterly*, 33(1): 61–81.

Guest, D.E. (1997) 'Human Resource Management and Performance: A Review and Research Agenda', *International Journal of Human Resource Management*, 8(3): 263–76.

Hackman, J.R. and Lawler, E.E. (1971) 'Employee Reactions to Job Characteristics', *Journal of Applied Psychology*, 55: 259–86.

Hall, D.T., Schneider, B. and Nygren, H.T. (1970) 'Personal Factors in Organizational Identification', *Administrative Science Quarterly*, 15(2): 176–90.

Henkel, M. and Kogan, M. (1996) *The Impact of Policy Changes on the Academic Profession.* Cardiff: University of Wales Institute.

Hood, C. (1991) 'A Public Management for All Seasons?', *Public Administration*, 69: 3–19.

Hood, C. (1995) 'The "New Public Management" in the 1980s: Variations on a Theme', *Accounting, Organizations and Society*, 20(2/3): 93–109.

Hrebiniak, L.G. and Alutto, J.A. (1972) 'Personal and Role-related Factors in the Development of Organizational Commitment', *Administrative Science Quarterly*, 17(4): 555–73.

Igbaria, M. and Wormley, W.M. (1992) 'Organizational Experiences and Career Success of MIS Professionals and Managers: An Examination of Race Differences', *MIS Quarterly*, 16(4): 507–29.

Jans, N.A. (1989) 'Organizational Commitment, Career Factors and Career/Life Stage', *Journal of Organizational Behavior*, 10(3): 247–66.

Jaros, S.J., Jermier, J.M., Koehler, J.W. and Sincich, T. (1993) 'Effects of Continuance, Affective and Moral Commitment on the Withdrawal Process: An Evaluation of Eight Structural Equation Models', *Academy of Management Journal*, 36(5): 951–95.

Jermier, J.M. and Berkes, L.J. (1979) 'Leader Behavior in a Police Command Bureaucracy: A Closer Look at the Quasi-Military Model', *Administrative Science Quarterly*, 24(1): 1–23.

Kanter, R.M. (1968) 'Commitment and Social Organization: A Study of Commitment Mechanisms in Utopian Communities', *American Sociological Review*, 33(4): 499–517.

Kirchmeyer, C. (1995) 'Demographic Similarity to the Work Group: A Longitudinal Study of Managers at the Early Career Stage', *Journal of Organizational Behavior*, 16(1): 67–83.

Knoke, D. (1988) 'Incentives in Collective Action Organizations', *American Sociological Review*, 53(3): 311–29.

Lee, S.M. (1971) 'An Empirical Analysis of Organizational Identification', *Academy of Management Journal*, 14(2): 213–26.

Leiter, M.P. and Maslach, C. (1988) 'The Impact of Interpersonal Environment on Burnout and Organizational Commitment', *Journal of Organizational Behavior*, 9(4): 297–308.

Mayer, R.C. and Schoorman, F.D. (1998) 'Differentiating Antecedents of Organizational Commitment: A Test of March and Simon's Model', *Journal of Organizational Behavior*, 19(1): 15–28.

Meyer, J.P. and Allen, N.J. (1997) *Commitment in the Workplace: Theory, Research, and Application*. Thousand Oaks, CA: Sage.

Mowday, R.T., Porter, L.W and Steers, R.M. (1982) *Employee–Organization Linkages: The Psychology of Commitment, Absenteeism and Turnover*. New York: Academic Press.

OECD (Organization for Economic Cooperation and Development) (1996) *Responsive Government: Service Quality Initiatives*. Paris: OECD.

Paauwe, J. (1994) *Organiseren: Een Grensoverschrijdende Passie*. Alphen aan den Rijn: Samsom.

Parker, M. and Jary, D. (1995) 'The McUniversity: Organization, Management and Academic Subjectivity', *Organization*, 2(2): 319–38.

Penley, L.E. and Gould, S. (1988) 'Etzioni's Model of Organizational Involvement: A Perspective for Understanding Commitment to Organizations', *Journal of Organizational Behavior*, 9(1): 43–59.

Peters, T.J. and Waterman, R.H. (1982) *In Search of Excellence: Lessons from America's Best-Run Companies*. New York: Harper and Row.

Pfeffer, J. and Veiga, J.F. (1999) 'Putting People First for Organizational Success', *Academy of Management Executive*, 13(2): 37–48.

Podsakoff, P.M. and Organ, D.W. (1986) 'Self-reports in Organizational Research: Problems and Prospects', *Journal of Management*, 12: 531–44.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003) 'Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies', *Journal of Applied Psychology*, 88(5): 879–903.

Pollitt, C. (1993) *Managerialism and the Public Services: Cuts or Cultural Change in the 1990s?* Oxford: Blackwell.

Pollitt, C. and Bouckaert, G. (2004) *Public Management Reform: A Comparative Analysis*. Oxford: Oxford University Press.

Porter, L.W., Steers, R.M., Mowday, R.T. and Boulian, P.V. (1974) 'Organizational Commitment, Job Satisfaction, and Turnover among Psychiatric Technicians', *Journal of Applied Psychology*, 59(5): 603–9.

Porter, M.E. (1985) *Competitive Advantage*. New York: Free Press.

Potocki-Malicet, D., Holmesland, I., Estrela, M. and Veiga-Simao, A. (1999) 'The Evaluation of Teaching and Learning', *European Journal of Education*, 34(3): 299–312.

Prichard, C. and Willmott, H. (1997) 'Just How Managed is the McUniversity?', *Organization Studies*, 18(2): 287–316.

Rizzo, J.R., House, R. and Lirtzman, S. (1970) 'Role Conflict and Ambiguity in Complex Organizations', *Administrative Science Quarterly*, 15: 150–63.

Salter, B. and Tapper, T. (2002) 'The External Pressures on the Internal Governance of Universities', *Higher Education Quarterly*, 56(3): 245–56.

Sashkin, M. and Morris, W.C. (1987) *Experiencing Management*. Reading, MA: Addison Wesley.

Sheldon, M.E. (1971) 'Investments and Involvements as Mechanisms Producing Commitment to the Organization', *Administrative Science Quarterly*, 16(2): 143–50.

Shore, L.M. and Barksdale, K. (1998) 'Examining Degree of Balance and Level of Obligation in the Employment Relationship: A Social Exchange Approach', *Journal of Organizational Behavior*, 19: 731–44.

Sills, S.J. and Song, C. (2002) 'Innovations in Survey Research, An Application of Web-Based Surveys', *Social Science Computer Review*, 20(1): 22–30.

Slocombe, T.E. and Bluedorn, A.C. (1999) 'Organizational Behavior Implications of the Congruence between Preferred Polychronicity and Experienced Work-Unit Polychronicity', *Journal of Organizational Behavior*, 20(1): 75–99.

Smeenk, S.G.A., Eisinga, R.N., Teelken, J.C. and Doorewaard, J.A.C.M. (forthcoming) 'The Managerialism Contradiction. A Literature Review of the Relationships between Predictors and Organisational Commitment', *International Journal of Management Reviews*.

Steers, R.M. (1977) 'Antecedents and Outcomes of Organizational Commitment', *Administrative Science Quarterly*, 22(1): 46–56.

Stiles, D. (2004) 'Narcissus Revisited: The Values of Management Academics and their Role in Business School Strategies in the UK and Canada', *British Journal of Management*, 15(2): 157–75.

Townley, B. (1997) 'The Institutional Logic of Performance Appraisal', *Organizational Studies*, 18(2): 261–85.

Trinczek, R. and West, A. (1999) 'Using Statistics and Indicators to Evaluate Universities in Europe: Aims, Fields, Problems and Recommendations', *European Journal of Education*, 34(3): 343–56.

Trow, M. (1994) 'Managerialism and the Academic Profession: The Case of England', *Higher Education Policy*, 7(2): 11–18.

Van Dyne, L. and Ang, S. (1998) 'Organizational Citizenship Behavior of Contingent Workers in Singapore', *Academy of Management Journal*, 41(6): 692–703.

VSNU (Vereniging voor Samenwerkende Nederlandse Universiteiten) (2004) *Wetenschappelijk Onderwijs Personeels Informatie* Online at: http://www.vsnu.nl (accessed 13 December)

Wallace, J.E. (1995a) 'Corporatist Control and Organizational Commitment among Professionals: The Case of Lawyers Working in Law Firms', *Social Forces*, 73(3): 811–40.

Wallace, J.E. (1995b) 'Organizational and Professional Commitment in Professional and Nonprofessional Organizations', *Administrative Science Quarterly*, 40: 228–55.

Watson, T.J. (2002) *Organising and Managing Work: Organisational, Managerial and Strategic Behaviour in Theory and Practice*. Harlow: Pearson Education.